3. The water vending system of claim 2 wherein the water vapor distillation apparatus further comprising:
a source water input;
an evaporator condenser apparatus comprising:
a housing; and
a plurality of tubes in the housing,
whereby the source water input is fluidly connected to the evaporator condenser and the evaporator condenser transforms source water into steam and transforms compressed steam into product water;
a heat exchanger fluidly connected to the source water input and a product water output, the heat exchanger comprising:
an outer tube; and
at least one inner tube; and
a regenerative blower fluidly connected to the evaporator condenser, whereby the regenerative blower compresses the steam, and whereby the compressed steam flows to the evaporative condenser where the compressed steam is transformed into product water.

4. The water vending system of claim 1 wherein the dispensing device further comprising a primary tank and a secondary tank for containing the water.

5. The water vending system of claim 4 further comprising a fill pump wherein the fill pump pumps water from the primary tank to the secondary tank.

6. The water vending system of claim 5 further comprising a diffuser in the secondary tank.

7. The water vending system of claim 6 further comprising a minimum volume sensor in the primary tank whereby the minimum volume sensor determines whether the primary tank is holding a minimum volume to fill the secondary tank.

8. The water vending system of claim 6 further comprising a maximum volume sensor in the primary tank whereby the maximum volume sensor determines whether the primary tank is full.

9. The water vending system of claim 4 further comprising an air flow conduit between the primary tank and the secondary tank.

10. The water vending system of claim 4 further comprising an ultraviolet sterilizer coupled to a fluid path between the primary tank and the secondary tank.

11. The water vending system of claim 4 further comprising a nozzle assembly downstream from the secondary tank.

12. The water vending system of claim 11 further comprising an ultraviolet sterilizer coupled to a fluid path between the secondary tank and the nozzle assembly.

13. A water vending system comprising:
a water vapor distillation apparatus;
a dispensing device, wherein the dispensing device is in fluid communication with the water vapor distillation apparatus and whereby product water from the water vapor distillation apparatus is dispensed by the dispensing device; and
at least one pump fluidly connected to the dispensing device, wherein the at least one pump pumps at least one additive into the product water.

14. The water vending system of claim 13 wherein the at least one pump is a membrane-based pump.

15. The water vending system of claim 14 further comprising a fluid management system wherein the fluid management system senses and verifies the volume of fluid delivered with each stroke of the at least membrane based pump.

16. The water vending system of claim 13 further comprising a multi-purpose interface comprising a spout and at least one conductivity sensor, located downstream from the spout, the multi-purpose interface located on the dispensing device, wherein the at least one conductivity sensor for measuring conductivity of the product water supplied to the at least one conductivity sensor from the spout.

17. The water vending system of claim 16 wherein the multi-purpose interface further comprising a proximity sensor, the proximity sensor sends a signal to a programmable logic controller to dispense water.

18. The water vending system of claim 13 further comprising an ultraviolet sterilizer coupled to a fluid path connected to the dispensing device.

19. The water vending system of claim 13 wherein the water vapor distillation apparatus further comprising:
a heat exchanger fluidly connected to the source water input and a product water output, the heat exchanger comprising:
an outer tube; and
at least one inner tube.

20. The water vending system of claim 18 further comprising:
a source water input;
an evaporator condenser apparatus comprising:
a housing; and
a plurality of tubes in the housing; and
a regenerative blower for compressing steam;
whereby the source water input is fluidly connected to the evaporator condenser and the evaporator condenser transforms source water into steam and transforms compressed steam into product water.

21. The water vending system of claim 19 wherein the regenerative blower fluidly connected to the evaporator condenser, whereby the regenerative blower compresses the steam, and whereby the compressed steam flows to the evaporative condenser where the compressed steam is transformed into product water.

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